

REMARKS

Applicant respectfully requests consideration of the subject application as amended herein. This Amendment is submitted in response to an Office Action mailed on October 7, 2003. Claims 1-9, 11-31, and 33-44 are rejected. Claims 8, 10, 20-22, 30, 32, and 42-44 are objected to. Claims 2-6, 8-22, 24-28, and 30-42 have been amended. Claims 1 and 23 have been cancelled. No new matter has been added.

Claim Objection

The Examiner objected to claims 20-22 stating that claim 20 depends from claim 9 while the drawings and specification teach otherwise. Claim 20 has been amended to depend from claim 4. Claims 21-22 depend from claim 20 and now depend from claim 4.

Claims 42-44 are objected to stating that claim 42 depends from claim 31 while the drawings and specification teach otherwise. Claim 42 has been amended to depend from claim 26. Claims 43-44 depend from claim 22 and now depend from claim 26.

35 U.S.C. § 112, second paragraph

Claims 5 and 27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the use of a trademark terminology. Claims 5 and 27 have been amended to remove the use of a trademark in the claim elements. The term “micro structure” can be supported by the specification at least at page 16, [0047].

35 U.S.C. § 103(a)

Claims 1-3, 6-8, 12-19, 23-25, 28-30 and 34-41 are rejected under 35 U.S.C. §

103(a) as being unpatentable over Swirbel, et al., (U.S. Patent No. 6,091,194, hereinafter “Swirbel”). Claims 4 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Swirbel, in view of Smith, (U.S. Patent No. 6,291,896, hereinafter “Smith”). Claims 9 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Swirbel, in view of Yamada, (U.S. Patent No. 6,246,179, hereinafter “Yamada”). Claims 11 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Swirbel, in view of Tang, et al., (U.S. Patent No. 5,409,783, hereinafter “Tang”). Claims 20-21 and 42-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Swirbel, in view of Difrancesco, (U.S. Patent No. 5,670,251, hereinafter “Difrancesco”). Claims 20, 22, 42 and 44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Swirbel, in view of Miyamoto, et al., (U.S. Patent No. 6,039,896, hereinafter “Miyamoto”). As discussed below, the pending claims are patentable over the above reference.

With respect to claims 1 and 23, Applicant has canceled these claims and is not expressing an opinion on these claims in this amendment.

With respect to claims 4 and 26, Applicant respectfully disagrees with the Examiner that claims 4 and 26 are obvious under Swirbel and in view of Smith.

As the Examiner pointed out, Swirbel did not teach a plurality of functional blocks which serve as drive circuits of the backplane substrate. Applicant respectfully submits that although Smith taught the use of functional blocks for driving display devices, Smith did not pertain to the use of functional blocks in a two-substrate display format. Smith did not suggest the configuration of how the functional blocks can be used in a two-substrate display format where a display medium is sandwiched between two substrates.

Furthermore, Smith did not suggest the interconnection to the functional blocks, for instance, as to how the plurality of output pads on the functional blocks configured to match the plurality of connecting regions on the second electrode layer.

Additionally, Applicant submits that even if Smith taught that the functional blocks can be tested before assembly so that any defective elements can be discarded before mounted in an array onto a substrate, Smith did not teach or suggest the incorporation of the functional blocks into a backplane substrate which is laminated to a frontplane substrate as required by claims 4 and 26. Efficiency for assembling of a product (e.g., not wasting materials on defective elements) had no relationship with incorporating functional blocks into a backplane substrate and connecting the blocks to a frontplane substrate as claimed in claims 4 and 26. Thus, one of ordinary skill in the art would have not turned to Smith to incorporate the functional blocks into the backplane substrate and establish connection to the functional blocks as claims in claims 4 and 26.

Nowhere in the teaching of Smith or Swirbel was there a suggestion or motivation of incorporating functional blocks into a two-substrate display configuration. Moreover, nowhere in the teaching of Smith or Swirbel was there a suggestion or motivation of incorporating functional blocks into the backplane as claims 4 and 26. In Applicant's claims 4 and 26, the functional blocks have output pads that match the plurality of connecting regions of the second electrode layer. As shown at least in Figures 3-6 of Applicant's disclosure, the connection between the output pads and the plurality of connecting regions of the second electrode layer are not made to the backside of the backplane substrate. In Applicant's claims 4 and 26, connections to the functional blocks need not go through vias that are created into and through the backplane substrate (to get to the back side). On the other hand, in the Swirbel, connections were made through the vias in the substrate to the

transistors formed on the backside of the substrate.

Furthermore, even if one of ordinary skill in the art were to use the functional blocks to make display having two substrate laminated together, (which as mentioned above was not suggested or motivated by either Swirbel or Smith), there was no teaching, suggestion, or motivation to make the connection to the functional blocks the way claims 4 and 26 are claimed.

Therefore, claims 4 and 26 are not obvious under Swirbel and in view of Smith.

With respect to claims 2-3, claims 2-3 have been amended to depend from claim 4. Applicant submits that claims 2-3 are not obvious under Swirbel and in view of Smith for the same reasons that claim 4 is not obvious under Swirbel and in view of Smith.

With respect to claims 5-22, claims 5-22 have been amended to depend from claim 4. Applicant submits that claims 5-22 are not obvious under Swirbel and in view of Smith for the same reasons that claim 4 is not obvious under Swirbel and in view of Smith.

With respect to claim 24-25, have been amended to depend from claim 26. Applicant submits that claims 24-25 are not obvious under Swirbel and in view of Smith for the same reasons that claim 26 is not obvious under Swirbel and in view of Smith.

With respect to claim 27-44, have been amended to depend from claim 26. Applicant submits that claims 27-44 are not obvious under Swirbel and in view of Smith for the same reasons that claim 26 is not obvious under Swirbel and in view of Smith.

In addition, with respect to claims 9 and 31, even if Yamada teaches the use of an insulation layer with a plurality of vias, Yamada and Swirbel, alone or in combination, did not teach or suggest the incorporation of the functional blocks into a backplane substrate and connected to electrodes in a frontplane substrate as claimed by claims 9 and 31.

In addition, with respect to claims 11 and 33, even if Tang teaches the use of a transparent electrode to permit light emission, Tang and Swirbel, alone or in combination, did not teach or suggest the incorporation of the functional blocks into a backplane substrate and connected to electrodes in a frontplane substrate as claimed by claims 11 and 33.

In addition, with respect to claims 20-21 and 42-43, even if Difrancesco teaches the use of a pressure sensitive adhesive that has conducting and non-conducting regions, Difrancesco and Swirbel, alone or in combination, did not teach or suggest the incorporation of the functional blocks into a backplane substrate and connected to electrodes in a frontplane substrate as claimed by claims 20-21 and 42-43.

In addition, with respect to claims 20, 22, 42, and 44, even if Miyamoto teaches the use of an anisotropic conductive adhesive to mechanically and electrically connect electrical components, Miyamoto and Swirbel, alone or in combination, did not teach or suggest the incorporation of the functional blocks into a backplane substrate and connected to electrodes in a frontplane substrate as claimed by claims 20, 22, 42, and 44.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 10 and 32 contain allowable subject matter if rewritten in independent form to include all the limitations of the base claims and any intervening claims. Claims 10 and 32 have been so amended. In view of these amendments, Applicant respectfully submits that claims 10 and 32 are now in condition for allowance, and request allowance of said claims.

If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully to contact Mimi Diemmy Dao at (408) 720-8300.

Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

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